

AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following claim listing:

1-4. **(Cancelled)**

5. **(Currently Amended)** A hole-assisted single mode optical fiber comprising:
a first cladding region having a uniform refractive index;
a core region with a radius r_1 having a refractive index higher than that of said first cladding region, and placed at a center of said first cladding region; and
a second cladding region including at least four air hole regions, each of which has a radius r_2 , is separated by a distance d from a center of said core region, and is placed in said first cladding region, wherein
the distance d is 2.0 to 4.5 times the radius r_1 of said core region, and the radius r_2 of said air hole regions is equal to or greater than 0.2 times the radius r_1 of said core region, and wherein
said hole-assisted single mode optical fiber has zero-dispersion wavelength characteristics conforming to the ITU-T recommendation G.652 in a range from 1300 nm to 1324 nm, and has a bending loss characteristics equal to or less than 1 dB/m at a bending radius 10 mm, and variations in a mode field diameter by providing said air hole regions is equal to or less than $\pm 10\%$.
6. **(Currently Amended)** The hole-assisted single mode optical fiber as claimed in claim [[1]] 5, wherein the radius r_1 of said core region is from 3.7 μm to 4.8 μm , and a relative index difference Δ of said core region from said first cladding region is in a range from 0.3% to 0.55%.

7. **(Currently Amended)** A hole-assisted single mode optical fiber comprising
a first cladding region having a uniform refractive index;
a core region with a radius r_1 having a refractive index higher than that of said first
cladding region, and placed at a center of said first cladding region; and
a second cladding region including at least four air hole regions, each of which has a
radius r_2 , is separated by a distance d from a center of said core region, and is placed in said
first cladding region, wherein
a relative index difference Δ of said core region from a refractive index of said first
cladding region is in a range from 0.05% to 0.12%, an effective core radius A from the center
of said core region to an extreme circumference of said air hole regions is in a range from 23
 μm to 28 μm , and wherein
said hole-assisted single mode optical fiber has a theoretical cutoff wavelength
characteristics equal to or less than 1100 nm, a bending loss equal to or less than 1 dB/m at a
bending radius 10 mm, and effective ~~core radius cross-sectional area~~ characteristics equal to
or greater than $150 \mu\text{m}^2$ in a wavelength range from 1260 nm to 1625 nm.